



Rare Earth Mining Information Kipawa Lake Preservation Society

Mission Statement

The Mission of Kipawa Lake Preservation Society is to preserve the Kipawa watershed as it is, environmentally healthy and unpolluted, through constant dialogue, education, and protective initiatives that involve the local population, general public, government officials and corporations directly or indirectly related to the Kipawa watershed.



As a group of concerned citizens, our goal is to bring the attention of the local, provincial and federal governments to issues that endanger the environmental health and the future of Kipawa Lake watershed.

Currently, a major issue is the mining exploration and proposed rare earth mine. In addition to the threats posed by all open pit mining operations, rare earth mining poses unique risks and has **never** been carried out in a safe manner. This informational brochure contains factual information from trusted sources regarding rare earth mining and its potential impacts. More detailed information can also be found on our website.

If you are against the mine and have time to help we are in constant need of volunteers.

“Rare Earth Mining not only exposes uranium to the atmosphere, where it becomes reactive, but releases other radioactive elements such as thorium and radium and toxic heavy metals including arsenic, selenium, mercury and cadmium.”

Source: Earthworks



“We won’t know the true value of our clean fresh water until we run out of it”

“Kipawa Lake is an important freshwater resource and ecological entity that must be protected at all costs...”

What are Rare Earth Elements?

- ◊ 16 elements on the periodic table
- ◊ Not actually rare, not all uses are ‘green’
- ◊ Used in magnets, batteries, electronics, hybrid cars, lasers, oil refining, weapons defense, etc.
- ◊ Rare earth mining NOT ‘green’ - releases many air pollutants and greenhouse gases, very damaging to environment and human health

How are Rare Earths Mined?

- ◊ Open pit strip mining
- ◊ Pre-production involves clear cutting of vegetation, removal of overburden and topsoil
- ◊ Production involves drilling, blasting, extracting and processing the ore
- ◊ Processing on site with toxic acids and bases on to separate Rare Earths from radioactive ores (Thorium and Uranium)
- ◊ Toxic and often radioactive waste is left on site forever in waste rock piles and tailing ponds

What are the impacts of mining Rare Earths?

- ◊ Poisoning of land, air and water with toxic and radioactive substances
- ◊ Acid mine drainage - kills fish and other living things, makes water unsafe to drink
- ◊ Radioactive substances persist for thousands of years (cause genetic mutations and cancer)
- ◊ Soil erosion and decreased water quality
- ◊ Formation of a pit lake (mine dewatering and groundwater draw down)
- ◊ Air pollution, noise pollution and vibration from blasting, grinding, crushing and other heavy machinery
- ◊ Heavy Metals (Lead and Mercury)
 - Accumulate in tissues of all living things
 - Concentrate over time as you move up the food chain
 - Chronic health problems and cancer
- ◊ Habitat loss or fragmentation
- ◊ Poisoning of water supply and food sources
- ◊ Noise, dust, harmful chemicals into air

MATAMEC PROJECT TIMELINES

Environment and Social Impact Study - 2014
 Permitting Process - 2013-2014
 Mine Construction - 2015-2016
 Start of Mining Operations - 2016
 Mine lifespan - 15.2 years but potential to increase lifespan

Kipawa Rare Earths Project—Matamec

- ◊ Matamec in collaboration with Toyotsu Rare Earth Canada
- ◊ Ores used for hybrid and electric vehicle production
- ◊ Open pit 1,500m x 320m x 110m, located within 600m of Kipawa River
- ◊ 18.6 metric tonnes waste rock
- ◊ 20.15 metric tonnes tailings
- ◊ **190-210 m³ fresh water per hour**
- ◊ **Wastewater treatment 1,469,400 m³ annually**
- ◊ 109 non-unionized employees, many require special training, education or expertise. If 100% went to local residents this would only be 3% of the population

Preliminary environmental and socio-cultural impacts from Matamec’s feasibility study include:

Effects on surface water quality and hydrology, drawdown of groundwater, effects on soil and air quality, disturbances from noise and vibration, loss of vegetation and wetlands, habitat loss and alteration, relocation of seasonal camps and cottages, effects on recreation use of area (hunting, fishing, trapping, canoeing), disturbance to archeological sites, visual modification of landscape, traffic increases on Maniwaki Road, potential risk of chemical spillage during transport from Ontario—Quebec, modifications to biophysical and social environment.

Matamec is not the only company in the area. Over 20 other companies currently carrying out exploration for rare earths, diamonds, gold and uranium. These include:

- ◊ Globex
- ◊ Aurizon Mines Ltd.
- ◊ Hinterland Metals
- ◊ Fieldex
- ◊ Forum Uranium Corp.
- ◊ X-Terra Resources Corp.

**OUR WATER IS SACRED SAY NO TO
RARE EARTH MINING!!**

Kipawa Lake Preservation Society
 Website : www.kipawalakepreservationsociety.ca
 Email : info@kipawalakepreservationsociety.ca
 Facebook : Kipawa Lake Preservation Society

